CALIFORNIA PROJECTS

Brawley County Water District Colonia

Rehabilitation of Sewer Collection and Water Distribution Systems

Agency Jurisdiction

- US Environmental Protection Agency
- California Regional Water Quality Control Board-Colorado River Basin Region
- California Department of Health Services

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HUMAN HEALTH AND ENVIRONMENTAL NEED

The Brawley County Water District Colonia, located in the eastern section of the City of Brawley, has a medium household income of $18,900 according to a survey performed by the City. The City of Brawley provides both water and sewer service to the Colonia. City staff has documented numerous leaks in the sewer collection and water distribution networks within the colonia. The water and wastewater distribution pipelines are approximately 30 years old. On K Street, the City has repaired 35 breaks in the water and sewer pipelines. This has resulted in the disruption of service to colonia customers, and creates a public health treat to local residents as a result of standing water and wastewater in the streets.

TYPE OF PROJECT

Water Supply and Wastewater Treatment

PROPOSED PROJECT

The proposed projects consists of improvements and rehabilitation of the sewer collection and water distribution systems in the Brawley County Water District Colonia. These improvements will address the various leaks and breaks in the sewer and water systems.

STUDIES NEEDED

In order to develop this project, a closed-circuit television survey of the water distribution and wastewater collection systems in the Brawley County Water District Colonia is needed. This survey will produce an accurate map of the sewer collection and water distribution systems, an evaluation of the condition of these systems, and will make recommendations for any improvements and rehabilitation of both systems. A cost analysis for any improvements and rehabilitation would also need to be performed.

PROJECT LOCATION

The Brawley County Water District Colonia is located in the eastern end of the City of Brawley, approximately 20 miles north of the US-Mexico border. The colonia has a population of approximately 2500 people, living in 500 housing units.

PROJECT PROPONENT(S)

The City of Brawley oversees activities in the Brawley County Water District colonia and thus will be the lead project proponent.

ESTIMATED COST

The estimated cost of the closed-circuit television survey is $100,000
The estimated cost of any improvements and rehabilitation will be determined once the studies are completed.

City of Brawley

Construction of a CNG Refueling Facility

Agency Jurisdiction:

- US Environmental Protection Agency
- California Air Resources Board
- Imperial County Air Pollution Control District

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HUMAN HEALTH AND ENVIRONMENTAL NEED

For the last decade, the air quality standards in both the Imperial and Mexicali Valleys have been exceeded for carbon monoxide (CO), ozone (O3) and particulate matter-10 micrometers (PM-10). The US Environmental Protection Agency (USEPA) has classified Imperial County as an area of non-attainment. The City of Brawley, located in Imperial County, has been designated by USEPA as "moderate" non-attainment for PM-10 and "transitional" for ozone. Air pollution in the region is a public health threat as it has been attributed to exacerbating respiratory illnesses in children and the elderly.

In order to mitigate air pollution in the region, the Imperial County Air Pollution Control District (ICAPCD), in conjunction with the Brawley Union High School District (BUHSD), propose to expand the infrastructure of Compressed Natural Gas (CNG) refueling facilities to encompass the northern portion of Imperial County. BUHSD currently has a small fleet of CNG school buses.

TYPE OF PROJECT

Air Quality Improvement

PROPOSED PROJECT

The proposed project involves the construction of a new skid-mounted, fast fill, 24-hour access, CNG refueling facility in Brawley, CA. An increase in the number of vehicles utilizing cleaner burning fuels can contribute to air pollution reduction in the region. In addition, the construction of a CNG refueling facility in Brawley can provide an incentive for transit agencies, private companies, and governmental agencies to convert their fleets, or portions thereof, to cleaner burning CNG fleets.

NEEDED STUDIES

Facility siting, planning and engineering studies would be needed. This effort will be minimal since similar CNG refueling facilities have been sited and constructed throughout California.

PROJECT LOCATION

The project would be located in Brawley, CA. The project would have a positive air quality impact within the Salton Sea Air Basin (in which Brawley is located) and throughout the entire County of Imperial.

PROJECT PROPONENT(S)

The Brawley Union High School District in cooperation with the Imperial County Air Pollution Control District.

ESTIMATED COST

The estimated cost including studies is $200,000.

City of Calexico

Water Treatment System Improvements

Agency Jurisdiction

- US Environmental Protection Agency
- California Department of Health Services

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HUMAN HEALTH AND ENVIRONMENTAL NEED

The City of Calexico in 1999 had a population of 26,150 and is one of the fastest growing cities within Imperial County. The City has an annual average population increase of five percent. The City of Calexico has inadequate water supply capacity for this future growth.

Much of Calexico's recent growth can be attributed to the presence of the Maquiladora manufacturing plants in Mexicali, Baja California. The maquiladoras provide labor-intensive manufacturing services for US based industries and are becoming more attractive to US businesses trying to remain competitive in the current economic climate. The continued productivity of the Imperial Valley as one of the nations top producers of agricultural products and agricultural related industry will also play a role in Calexico's future growth trends. Additionally, Calexico is the only city bordering Mexico that has California Enterprise Zone status. Enterprise Zones were legislated throughout the State of California in 1985. The program provides tax incentives to business, thus encouraging private sector market forces in target areas.

TYPE OF PROJECT

Water Supply

PROPOSED PROJECT

The City of Calexico is proposing improvements to the existing City's Water Treatment Plant and Distribution System. The city is also proposing construction of a satellite pump station with a six million gallon storage reservoir on the easterly city limits. This improvement will enable the City to increase the fire flows and address the inadequate water supply capacity for future growth.

STUDIES NEEDED

Engineering design and environmental assessment studies will be needed.

PROJECT LOCATION

The project will be located within the City of Calexico. This City it is located on the US-Mexico border, approximately 118 miles east of San Diego. It is located immediately north of the metropolitan city of Mexicali, B.C. Mexico, a city with a population of approximately 1.5 million people. The City of Calexico's entire population, approximately 30,000, will benefit from the proposed project.

PROJECT PROPONENT(S)

City of Calexico

ESTIMATED COST

The estimated cost including studies is $4,995,617.

City of Calexico

New River Sanitation & Encasement

Agency Jurisdiction

- California Regional Water Quality Control Board – Colorado River Basin Region
- Imperial County

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HUMAN HEALTH AND ENVIRONMENTAL NEED

Often referred to as the most polluted river in the United States, the New River originates near Mexicali, Mexico, and flows across into the California through the City of Calexico and regions of Imperial County before discharging into the Salton Sea. Flows in the New River, carry urban runoff, untreated and partially treated municipal sewage, untreated and partially treated industrial waste, and agricultural runoff. The public health impact of the New River pollution is experienced locally, primarily by the citizens of Calexico and the undocumented workers attempting to cross into the United States by floating or swimming the river.

Pollutant flows in the New River are well documented and date back to the early 1940s. New River has been found to contain fecal and E. Coli bacteria, solid waste (trash) from indiscriminate dumping, raw sewage and industrial discharges (metals, ammonia, phosphates, volatile organic constituents). The New River routinely and substantially exceeds water quality standards for fecal coliforms, dissolved oxygen, a number of industrial chemical constituents, sewage solids and trash. Further testing of fish collected near the border has also revealed abnormally high levels of PCBs and mercury (California Regional Water Quality Control Board (CRWQCB), 1998). In addition, the CRWQCB and the Imperial County Health Department have identified and posted the New River as a public health hazard.

TYPE OF PROJECT

Water Supply, Wastewater Treatment, Solid Waste Management and Industrial and Hazardous Waste

PROPOSED PROJECT

The proposed project will address improvement of the New River water resource, treatment of wastewater, removal and management of solid waste from the river flow, and cleanup of industrial and contaminated river bottom soils.

The proposed project includes:

- Providing trash screening and aeration about 400 ft downstream (North) of the point where the New River enters the United States. This will allow for tires and debris to be removed from the New River;
- Isolating the river from public access by rerouting it through an enclosed channel as well as stabilizing the existing channel. This will provide public health protection, address odor problems, limit access to the river, and cover potentially contaminated sediments in a manner that could be reversed when water conditions upstream improve;
- Cleaning of the New River bottom contaminated soils;
- Creating open space for recreational facilities including walking and bicycle trails, and soccer and baseball fields; and
- New River habitat improvement, such as native plants revegetation and construction of wastewater polishing system consisting of artificial and enhanced wetlands.

STUDIES NEEDED

Preliminary engineering and design, environmental studies to address both California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) will be required as well as permitting through the various Federal, State and local agencies. There have been several concept studies and associated input from various agencies and committees over the years.

PROJECT LOCATION

The project will be located on the California side of the New River in the City of Calexico and continue northerly approximately 3.5 miles to State Route 98, east of Calexico in Imperial County. A wastewater polishing system, including ponds and artificial wetlands, would be created north of State Route 98.

PROJECT PROPONENT(S)

This is a multi task force effort. Proponents include the County of Imperial, City of Calexico, Calexico Citizens New River Committee, Imperial Irrigation District and the Citizens Congressional Task Force on the New River. The lead project proponents are the County of Imperial and the Calexico Citizens New River Committee.

ESTIMATED COST

- Engineering Design
- CEQA/NEPA Studies
- Inlet Structure
- Trash Rack
- Box Culvert
- Open Space habitat improvement
- Wetlands

The estimated cost is $75 million.

City of Calexico

Expansion of the Calexico-Mexicali West Port of Entry

Agency Jurisdiction

- US Environmental Protection Agency
- California Air Resources Board
- Imperial County Air Quality Control District

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HUMAN HEALTH AND ENVIRONMENTAL NEED

The City of Calexico is one of the busiest border crossings cities between the United States and Mexico. Close to 12 million vehicles cross into Calexico each year. The heavily congested roads and resulting vehicle emissions have deteriorated the air quality of the region. For the last decade, the air quality standards in both the Imperial and Mexicali Valleys have been exceeded for carbon monoxide (CO), ozone (O_3) and particulate matter-10 micrometers (PM-10). The US Environmental Protection Agency (USEPA) has classified Imperial County as a non-attainment area. Air pollution in the region is a public health threat as it has been attributed to exacerbating respiratory illnesses in children and the elderly.

TYPE OF PROJECT

Air Quality Improvement and Public Transportation

PROPOSED PROJECT

The City of Calexico proposes to expand the Calexico-Mexicali West Port of Entry to address heavily congested roads and the resulting air quality deterioration.

STUDIES NEEDED

The City of Calexico has prepared under contract a traffic circulation study dated June 12, 2000, and a Calexico West Border Station Expansion Circulation Analysis dated March 2003, which includes a mitigation and cost analysis.

Preliminary engineering, design, and environmental studies will be required for preparation of plans and specifications for construction. California Environmental Quality Act (CEQA) and possibly National Environmental Policy Act (NEPA) studies may also be required to address the environmental impacts, as well as other permit processes through the various Federal, State, and local agencies.

PROJECT LOCATION

The project will be located within the City of Calexico. The City is located on the US-Mexico border, approximately 118 miles east of San Diego. The City of Calexico, with a population of approximately 30,000, is located immediately north of the metropolitan City of Mexicali, Mexico, which has a population of approximately 1.5 million.

PROJECT PROPONENT(S)

City of Calexico

ESTIMATED COST

The estimated cost is $8,744,316.

Calexico Port of Entry Traffic Totals

January-December 2002

	Calexico West	Calexico East
Pedestrians	*6,924,761*	*9,749*
Vehicles	*8,203,082*	*3,719,776*
Total Persons	*20,902,658*	*8,161,717*
Commercial Trucks	*—-*	*260,606*

** The new East Calexico Port of Entry provides an improved link to major trucking routes, and to move people and goods between Mexico and the United States.*

City of Calexico

Wastewater System Improvements

Agency Jurisdiction

- US Environmental Protection Agency
- California Department of Health Services

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HUMAN HEALTH AND ENVIRONMENTAL NEED

The City of Calexico in 1999 had a population of 26,150 and is one of the fastest growing cities within Imperial County. The City has an annual average population increase of five percent. The City of Calexico has inadequate wastewater collection and treatment capacity for future growth. Additionally, the City's sewage collection system and many of the wastewater treatment plant components are over 30 years old.

TYPE OF PROJECT

Wastewater Treatment

PROPOSED PROJECT

The City of Calexico is proposing improvements to the existing City's Wastewater Treatment & Collection System, which consists of nineteen thousand lineal feet of 36-inch and 42-inch sewer main collection, two lift stations, two secondary clarifiers, one aerator, two dewatering units, plant controls, pumps, and mechanical piping.

STUDIES NEEDED

A study to evaluate the City's Wastewater Treatment Plant & Sewage Collection System will be needed. This study will identify and recommend improvements and rehabilitation to the wastewater system. Preliminary engineering, design, and environmental studies will be needed for any improvements and rehabilitation recommended. A rate study will also need to be performed.

PROJECT LOCATION

The project will be located within the City of Calexico. The City it is located on the US-Mexico border, approximately 118 miles east of San Diego. The City of Calexico's entire population, approximately 30,000, will benefit from the proposed project.

PROJECT PROPONENT(S)

City of Calexico

ESTIMATED COST

The estimated project cost including studies is $9,240,000 (2002 figure).

City of Calipatria

Sewer Collection System Improvements

Agency Jurisdiction

- US Environmental Protection Agency
- California Regional Water Quality Control Board-Colorado River Basin
- Imperial County

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HUMAN HEALTH AND ENVIRONMENTAL NEED

The City of Calipatria owns and operates an aeration pond system to treat domestic wastewater from the City of Calipatria and the Calipatria State Prison. City staff have documented several leaks and breaks in the sewer lines, which were constructed over 50 years ago and have been impacted by several small earthquakes. Over the past year and a half, City staff has replaced a sewer manhole and three broken sewer lines. Sewer pipeline overflows are a public health threat to local residents and can potentially impact surface water quality. A portion of the City's surface water runoff eventually discharges into the Alamo River, which flows into the Salton Sea.

Additionally, based upon the results of recent priority pollutant monitoring, the City of Calipatria has determined it will be unable to achieve immediate compliance with the new proposed effluent limits under the California Toxics Rule (CTR). Specifically, the City of Calipatria has exceeded effluent CTR limits for selenium, thallium, and cyanide. As a result, the City requires additional assistance with the characterization and source identification of elevated priority pollutant levels at the plant. The groundwater in the vicinity of the plant is shallow, and the City speculates the source of elevated metals concentrations may be due to local groundwater infiltration from surrounding contaminated soils into the collection system. Treated and disinfected effluent from the plant is discharged into the "G" Drain, which flows directly into the Alamo River, and then ultimately into the Salton Sea.

TYPE OF PROJECT

Wastewater Treatment

PROPOSED PROJECT

The proposed project consists of improvements and rehabilitation of the sanitary sewer collection system in the City of Calipatria. These improvements will address the various leaks and breaks in the sewer system, and could also address current effluent limit exceedances at the City's Wastewater Treatment Plant.

THE AVERAGE FLOW OF THE CITY OF CALIPATRIA WASTEWATER TREATMENT PLANT IS APPROXIMATELY 1.1 MILLION GALLONS PER DAY (MGD).

STUDIES NEEDED

In order to develop this project, the City needs to perform a closed-circuit television survey of the entire sewer collection system, which is comprised of approximately 92,000 lineal feet of pipeline. This survey will produce an accurate map of the collection system, an evaluation of the condition of the system, and will make recommendations for any improvements and rehabilitation. A cost analysis for any improvements and rehabilitation recommended would also need to be performed.

In addition, the City needs to perform a groundwater infiltration study to determine the potential source(s) of elevated metals effluent concentrations at the plant. This study will determine whether groundwater infiltration into the sewer collection system is the cause of elevated levels of cyanide, selenium, and thallium at the plant's effluent discharge.

PROJECT LOCATION

The City of Calipatria wastewater treatment plant is located near the intersection of Lindsay and English Streets, in the southwestern corner of the city, approximately 35 miles north of the US-Mexico border. The closed-circuit television survey would be performed in approximately 92,000 lineal feet of various sized clay and hard-plastic pipeline.

The population of the City of Calipatria is approximately 8,000, 25% of which live below the poverty level. The project would benefit the entire City population and the Alamo River and Salton Sea drainage basins.

PROJECT PROPONENT(S)

City of Calipatria

ESTIMATED COST

The estimated cost for the closed-circuit television survey is $105,000.
The estimated cost for the groundwater infiltration study is $60,000.
The estimated cost of improvements and rehabilitation to the sewer system will be known once studies are completed.

Community of Campo

Development of a Water/Wastewater Master Plan and Groundwater Management Plan

Agency Jurisdiction

- US Environmental Protection Agency
- California Regional Water Quality Control Board-San Diego Region
- California Department of Health Services

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HUMAN HEALTH AND ENVIRONMENTAL NEED

The County of San Diego owns and operates a local water supply and sewer treatment/disposal system that serves the unincorporated community of Campo, located in southeastern San Diego County. This system serves County facilities (primarily a juvenile detention camp) and approximately 48 residential/commercial properties, including the U.S. Border Patrol, Postal Service and Campo Railroad Museum. The Federal government originally constructed the water/sewer system in order to serve the Army's Camp Lockett during World War II. Following the war, the base and supporting infrastructure was conveyed to the County of San Diego. However, the County never received any "as-built" drawings or system maps. Knowing the location and general condition of both systems would be highly desirable and would provide a baseline framework upon which to prepare a master water and sewer facility plan for the area.

The Campo area is also dependent on groundwater resources as its principal water supply. Because groundwater is the only sole source of water supply for the area, it is important that the resource and its withdrawal limits be understood. The last study of Campo groundwater conditions occurred in the early 1980's. Since that time weather patterns have generally been mixed between dry to moderately wet. During 1999-2003 the pattern was extremely dry. In order to ensure long-term availability of this limited resource, development of a groundwater management plan should also be pursued.

TYPE OF PROJECT

Water Supply, Wastewater Treatment and Water Management

PROPOSED PROJECT

The proposed project consists of a water/wastewater system assessment, development of a water/wastewater master plan, a groundwater assessment and development of a groundwater management plan.

Water/Wastewater System Assessment and Master Plan:

Phase 1: Inventory and assess the location and condition of all water supply and wastewater facilities in the unincorporated community of Campo operated by the County of San Diego.

Phase 2: Based on the information developed in Phase I, prepare a water and wastewater facility master plan in conjunction with the San Diego County General Plan.

Groundwater Assessment and Management Plan:

Phase I: Perform an updated groundwater assessment
Phase II: Based on information obtained in Phase I, develop a Groundwater Management Plan.

STUDIES NEEDED

As part of the proposed water/wastewater master plan, a financial feasibility analysis and plan will also be needed. In addition, engineering plans will be required to form the basis for a five year Capital Improvement Plan.

The groundwater assessment component would include necessary background hydrogeological studies and updates of previous reports. The most recent investigation occurred in the early 1980's as part of the Campo Hills development project (Final Environmental Impact Report – Campo Hills Mobile Home

Park, March 15, 1984 – Log #81-21-6). Additional water quality information is also available from the County as part of a recent study to amend the California Regional Water Quality Control Boards Waste Discharge Permit for the Campo wastewater treatment facility.

PROJECT LOCATION

Campo is located in southeast San Diego County approximately 60 miles from San Diego. Campo adjoins the US-Mexico border to the south and the Campo Indian Reservation to the north and east.

PROJECT PROPONENT(S)

County of San Diego – Department of Public Works, Wastewater Management, in cooperation with the County Department of Planning and Land Use and the Campo/Lake Morena Community Planning Group.

ESTIMATED COST

Water/Wastewater Component Cost

Phase I: $ 175,000

Phase II: $150,000

Total: $325,000

Groundwater Component Cost

Phase I: $150,000

Phase II: $200,000

Total: $350,000

Community of Descanso

Installation of Groundwater Treatment System

Agency Jurisdiction

- US Environmental Protection Agency
- California Department of Health Services
- San Diego County

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HUMAN HEALTH AND ENVIRONMENTAL NEED

The Descanso Community Water District operates two drinking water wells (a primary and backup well). Currently, both groundwater wells exceed the secondary Maximum Contaminant Levels (MCLs) for iron and manganese, per the California Department of Health Services (DHS) regulation. The primary well is the only well in use because the District injects potassium phosphate in order to retain the high iron and manganese in suspension in the groundwater, such that it does not form deposits during household use. This practice is an acceptable stopgap measure, masking the presence of these visual contaminants, but not removing them. The District has utilized this practice for many years. As a result, the primary well has been grandfathered as an acceptable domestic water supply source. However, iron and manganese concentrations above the secondary MCLs are a potential public health threat.

TYPE OF PROJECT

Water Supply

PROPOSED PROJECT

The District proposes to install adequate treatment at their primary and back-up groundwater wells in order to meet drinking water secondary MCLs for iron and manganese. The District proposes to utilize high-rate filtration treatment technology. The District has performed pilot tests and desk-top analyses to confirm that high-rate filtration removes levels of iron and manganese to below the secondary MCLs of iron and manganese at both wells. This project will allow both wells to be utilized. In addition, the District will be able to discontinue the injection of potassium phosphate.

STUDIES NEEDED

Preliminary and final engineering design is needed for the proposed treatment. To date only pilot tests and desk-top analyses of the high-rate filtration have been performed.

PROJECT LOCATION

Descanso is a small unincorporated community of approximately 1,000 people (300 connections) located about 30 miles east of San Diego. The entire community's population will benefit from the proposed project.

PROJECT PROPONENT(S)

The Descanso Community Water District

ESTIMATED COST

The estimated cost for both the preliminary and final engineering design is approximately $35,000. The estimated cost for installation of a high-rate filtration system is $270,000.

Community of Desert Shores

Wastewater Treatment System Improvements

Agency Jurisdiction

- US Environmental Protection Agency
- California Regional Water Quality Control Board-Colorado River Basin Region

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HUMAN HEALTH AND ENVIRONMENTAL NEED

The Salton Community Services District operates a wastewater treatment plant in Desert Shores, California. The operation is a percolation ponding system, which is located at a higher elevation than the residences it services. Percolation flows are shallow (3-5 feet below ground surface) and as a result, ponding has occurred in the neighboring property. Additionally, the plant influent now exceeds 80% of capacity, and the District may reach capacity within 24 months.

TYPE OF PROJECT

Wastewater Treatment

PROPOSED PROJECT

The proposed project consists of improvements to the wastewater treatment system in the community of Desert Shores in order to address ponding in the neighboring property.

STUDIES NEEDED

A feasibility study will be needed to identify and assess alternatives, and make recommendations for any improvements to the wastewater treatment system. A cost analysis will also need to be performed. The alternatives to be assessed include continued percolation, discharge to the Salton Sea, and water recycling. In addition, preliminary and final engineering studies and environmental assessments will be needed. Some work has already been performed through a BECC grant to address saltwater intrusion into the community's sewer collection system.

PROJECT LOCATION

The community of Desert Shores is located along the west shore of the Salton Sea, in Imperial County, approximately 50 miles north of the US-Mexico border and 25 miles south of Indio, California. The entire community of Desert Shores, with a population of approximately 1000 people, will benefit from the proposed project.

PROJECT PROPONENT(S)

Salton Community Services District

ESTIMATED COST

The estimated cost to perform all studies is $120,000.
The estimated cost of improvements to the system will be known once studies are completed.

Imperial County

Conversion of Regional Public Transit Vehicles to Alternative Fuel

Agency Jurisdiction

- US Environmental Protection Agency
- California Air Resources Control Board
- Imperial County Air Pollution Control District

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HUMAN HEALTH AND ENVIRONMENTAL NEED

For years the air quality standards in both the Imperial and Mexicali Valleys have been exceeded for carbon monoxide (CO), ozone (O_3) and particulate matter-10 micrometers (PM-10). The US Environmental Protection Agency (USEPA) has classified Imperial County as a non-attainment area. Air pollution in the region is a public health threat as it has been attributed to exacerbating respiratory illnesses in children and the elderly.

The Imperial Valley Association of Governments (IVAG), in cooperation with the Air Pollution Control District, identified the need to examine the use of alternative fuels in the regional transit bus system in order to mitigate air pollution problems in Imperial Valley. As a result, IVAG contracted the Transit Resource Center of Florida to prepare an impact analysis report to identify the need and impact of the use of two types of alternative fuels, Compressed Natural Gas (CNG) and low sulfur diesel. The report, titled "Imperial County Alternatives Fuel Impact Analysis", published in May 2003, also identifies the investment in capital rolling stock and infrastructure needed, as well as the additional operational annual costs that would be incurred on the daily transit system. The report concluded that the existing revenue sources could accommodate the increased operational costs. However, the capital outlay for the rolling stock (vehicles) is identified as an unmet need.

Typical funding sources such as the Congestion Management and Air Quality (CMAQ) funds are not available to the Imperial Valley region at this time. Therefore, alternate funding sources are sought to acquire the vehicles.

TYPE OF PROJECT

Air Quality Improvement

PROPOSED PROJECT

The proposed project involves the replacement of the existing fleet of transit vehicles in Imperial County with alternative fueled vehicles. This will involve the procurement and delivery of either low sulfur diesel or CNG transit buses, thus improving air quality in the region.

PROJECT LOCATION

The project will convert or replace existing public transit vehicles to an alternative fuels type throughout Imperial County as part of the Imperial Valley Association of Governments (IVAG) Regional Transit System.

PROJECT PROPONENT(S)

Imperial County Department of Public Works

ESTIMATED COST

The total estimated cost is $5,000,000.

Imperial County

Landfill Closures & Transfer Stations Construction

Agency Jurisdiction

- US Environmental Protection Agency
- California Integrated Waste Management Board
- Imperial County

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HUMAN HEALTH AND ENVIRONMENTAL NEED

Imperial County is a rural, agricultural based County located at the southeast most corner of California, bounded by Arizona to the east and Mexico to the south. The County operates and maintains ten landfills that aggregately take in approximately 30,000 tons per year of municipal solid waste. Nine out of the ten landfills are only open twice per week. The County landfills are located throughout the Imperial Valley and primarily serve small rural, outlying population areas. It is currently not cost effective to operate and maintain these landfills. However, the County is required to provide a sanitary means of solid waste disposal services to the public. This is in fact critical as the alternative could include indiscriminate illegal dumping of waste in environmentally sensitive areas of the County.

By the Spring of 2007, the County must close four landfills (Brawley, Ocotillo, Palo Verde and Picacho Landfills) due to an agreement recently entered into with the California Integrated Waste Management Board (CIWMB). The remaining landfills will also be approaching capacity and require closure. In addition, there is insufficient tonnage being received at all the landfills to justify ongoing operations of landfilling.

When closure of a landfill occurs, a transfer station must be made available so that affected residents can continue to dispose of solid waste at a nearby location. Recently, the County successfully implemented a low volume transfer station at one of the outlying rural landfills and has seen a dramatic decrease in Operation & Maintenance costs.

TYPE OF PROJECT

Solid Waste Management

PROPOSED PROJECT

The proposed project consists of final closure or early closure of eight landfills in Imperial County (Brawley, Imperial, Holtville, Hot Spa, Palo Verde, Niland, Ocotillo, and Picacho Landfills), and the construction of transfer stations at the aforementioned landfills and at the Salton City Landfill, except for the Palo Verde Landfill where a transfer station already exists. Construction of these transfer stations will allow area residents and in one case, packer trucks to deposit their waste into transfer bins via a transfer station, which will then be hauled to another landfill.

The Transfer Station component will include necessary environmental and geotechnical studies as well as design and engineering to construct the transfer stations. The Final Closure component would include provisions for preparing the necessary final closure plans, environmental studies as well as design and engineering to construct the Final Closure of the landfills. The Transfer Stations would be sited on the landfills and there will be modifications to the final closure plans to address the transfer operations. The existing transfer station at the Palo Verde Landfill will not be impacted by the final closure of the landfill.

The County has designated funds in an account, which is not sufficient for closure, but could be used as a local match. The Project will therefore require supplemental funds to initiate and construct final closure of the landfill.

Table 1. Amount of Solid Waste Received and Proposed Project for Each Landfill

Landfill	Solid Waste Received (tons/day)	Days Open per Week (days/wk)	Proposed Project
Brawley[1]	75-120	6	Closure & Transfer Station
Imperial	10	2	Closure & Transfer Station
Holtville	10	2	Closure & Transfer Station
Hot Spa	5	2	Closure & Transfer Station
Niland	5	2	Closure & Transfer Station
Ocotillo	5	2	Closure & Transfer Station
Palo Verde	5	2	Closure Only
Picacho	10	2	Closure & Transfer Station
Salton City	5	2	Transfer Station Only

[1] The type of transfer station required for this site will be a large volume type with much more infrastructure requirements and permitting than the outlying rural site requirements.

THE PALO VERDE TRANSFER STATION

STUDIES NEEDED

Transfer Station Component: Preliminary Engineering is required for preparation of Plans and Specifications for Transfer Stations Construction. This will include geotechnical foundation reports, topographic update for site layouts, engineering and environmental documentation as well as permitting necessary to address California Environmental Quality Act (CEQA) and possibly National Environmental Protection Act (NEPA).

Final Closure Component: Preliminary Engineering is required for preparation of Plans and Specifications for Final Closure Construction. This would include geotechnical reports, hydrological studies, topographic updates, engineering and other environmental documentation. The county has a draft Final Closure and Post Closure Maintenance Plan for the Brawley Landfill and Preliminary Closure and Post Closure Maintenance Plans for the other landfills. These plans may have to be further modified for the proposed Transfer Stations

PROJECT LOCATION

Table 2. Project Location and Population to Benefit

Landfill	Location	Pop. Benefit
Brawley	Located in the northeast quadrant of Hovley Road and Brawley Dump Road adjacent to the New River, north of the City of Brawley in the unincorporated area of Imperial County.	22,266
Imperial	Adjacent to the New River at Worthington Road approximately six miles west of the City of Imperial in Imperial County.	664
Holtville	Off Whitlock Road, one mile north of Norrish Road, east of the City of Holtville in the unincorporated area of Imperial County.	1,437
Hot Spa	Located on Spa Road, east of State Route 111 and the Salton Sea in the unincorporated area of Imperial County.	1,158
Niland	Located off Cuff Road, northeast of the community of Niland, in the unincorporated area of Imperial County.	1,143
Ocotillo	Located off Shell Canyon Road, north of the townsite of Ocotillo in Imperial County.	296
Palo Verde	Located on Stallard Road, three miles west of Palo Verde in the unincorporated area of Imperial County.	236
Picacho	Located on Picacho Road between the community of Winterhaven and Picacho State Park in the unincorporated area of Imperial County within tribal lands belonging to the Quechan Indian Nation.	529
Salton City	Located three miles south of the community of Salton City and three miles west of State Highway 86 in the unincorporated area of Imperial County.	1,370
	Calexico Population to Benefit	914
	TOTAL POPULATION TO BENEFIT	30,013

PROJECT PROPONENT(S)

Imperial County Department of Public Works

ESTIMATED COST

Table 3. Estimated Cost

Landfill	Transfer Station Cost, $	Final Closure Cost, $	Total Cost, $	County Funds Available, $	Total Need for Project Completion, $
Brawley	$2,500,00	$2,164,108	$4,664,108	$2,264,715	$2,399,393
Imperial	$131,500	$ 854,627	$ 986,127	$ 318,666	$667,461
Holtville	$131,500	$1,386,933	$1,518,433	$952,603	$565,830
Hot Spa	$131,500	$582,599	$714,099	$128,372	$585,727
Niland	$131,500	$912,685	$1,044,185	$434,086	$610,099
Ocotillo	$131,500	$551,382	$682,882	$289,491	$393,391
Palo Verde	—-	$760,687	$760,687	$398,599	$362,088
Picacho	$131,500	$978,656	$1,110,156	$728,990	$381,166
Salton City	$131,500	—-	$131,500	——	$131,500
				TOTAL NEED	$6,096,655

**The estimated costs include all necessary design, engineering, environmental, geotechnical studies as well as construction costs. Imperial County will perform much of the project management and coordination efforts.*

Imperial County

Waste Tire Cleanup

Agency Jurisdiction

- County of Imperial Department of Public Works
- Imperial Valley Solid Waste Reduction Task Force
- Imperial Irrigation District

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DESCRIBE THE HUMAN HEALTH AND ENVIRONMENTAL NEED

Imperial County is a rural county with a geographic area of approximately 4,600 square miles and a population of about 145,000 people. Waste tires are continuously dumped illegally throughout the County. Imperial County currently maintains over 2500 miles of paved and unpaved roads. The Imperial Irrigation District (IID) maintains over 1600 miles of canal ditch bank roads. Tires are typically dumped along both Imperial County and IID roads. This type of pollution is not only a public nuisance, but also a public health threat due to disease vectors. In addition, tire waste can cause a negative impact to the county's environmentally sensitive areas.

Imperial County along with local municipalities participate in the Imperial Valley Solid Waste Reduction Task Force. This task force actively seeks funding for the collection of used waste tires, coordinates tire abatement programs with service organizations, and is currently setting up a citizen's hotline for the region. Imperial County in cooperation with IID and the Imperial Valley Solid Waste Reduction Task Force are interested in augmenting their efforts through the collection of waste tires on County roads and along canal ditch banks.

TYPE OF PROJECT

Solid Waste Management

PROPOSED PROJECT

The project involves collection and proper disposal of illegally disposed waste tires throughout Imperial County. Clean-up efforts will focus on county roads and along canal ditch banks. Imperial County will coordinate efforts with service organizations such as the Boy Scouts, 4H and other volunteer groups in order to collect waste tires and dispose of them in County container bins to be located at key locations throughout the region. Imperial County proposes to self-haul or contract the hauling to a designated tire recycling facility.

STUDIES NEEDED

No studies needed.

PROJECT LOCATION

The tires are scattered throughout the entire Imperial County, primarily over 2500 miles of county roads and 1600 miles of irrigation canal ditch bank roads.

AGENCY JURISDICTION

County of Imperial Department of Public Works in cooperation with the Imperial Valley Solid Waste Reduction Task Force and Imperial Irrigation District.

ESTIMATED COST

The estimated cost for collection, coordination with service organizations, advertising and hauling is estimated at $125,000.

Imperial County

Cleanup of Illegal Disposal Waste Sites

Agency Jurisdiction

- US Environmental Protection Agency
- California Integrated Waste Management Board
- Imperial County

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HUMAN HEALTH AND ENVIRONMENTAL NEED

Indiscriminate or illegal dumping of commercial and residential municipal solid waste along county roads is an ongoing problem in Imperial County. Discarded waste can be a human health issue due to putrefaction and resulting vector generation. Discarded waste is also a potential storm water pollutant, which can enter water bodies, threatening health of aquatic life, bird populations, and consequently enter the human food chain. Unsightly discarded trash or waste can cause a negative impact to the county's environmentally sensitive areas as well as within the county's agricultural irrigated areas.

TYPE OF PROJECT

Solid Waste Management

PROPOSED PROJECT

The project consists of cleanup of illegal dump sites and trash along the county roads within the County of Imperial. A contractor will remove the waste by hauling it to a county or other designated landfill or recycle as required. In addition, the project will include advertising and preparation of informational brochures addressing illegal dumping in the County and its relationship to storm water impacts. Deliverables would include tonnage of waste recovered from county roads, advertising performed and number of brochures printed and made available to the public.

STUDIES NEEDED

The waste cleanup project will require engineering related to preparation of a contract and bid documents as well as advertising and brochure development needs. No actual studies will be required.

PROJECT LOCATION

Imperial County is located in the southeast corner of California and shares its southern border with Mexico. Cleanup activities will occur at various road locations in Imperial County.

PROJECT PROPONENT(S)

Imperial County Department of Public Works

ESTIMATED COST

The estimated cost for advertising, brochure preparation and preliminary engineering for bid documentation is $20,000.

The estimated cost for cleanup, reporting and solid waste tipping fees is $180,000.

The estimated cost is $200,000.

Imperial County

Construction of a Water Treatment and Distribution System

Agency Jurisdiction

- US Environmental Protection Agency
- California Department of Health Services
- Imperial County

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HUMAN HEALTH AND ENVIRONMENTAL NEED

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Imperial Valley residents who reside in unincorporated areas not currently served by a Water District, lack access to municipal public water supply. These residents rely on untreated canal water for household needs and expensive bulk hauled water for drinking. In addition, the groundwater aquifer within the area is shallow and highly saline and has been designated as having no beneficial use by the California Regional Water Quality Control Board-Colorado River Basin. The Environmental Protection Agency (USEPA) and the California Department of Health Services (DHS) have also indicated concerns regarding human exposure to untreated canal water in the region. Imperial County needs a Water Treatment and Distribution System to service residents lacking access to potable water.

TYPE OF PROJECT

Water Supply

PROPOSED PROJECT

The proposed project consists of the construction, administration and service of a Centralized Municipal Water Treatment Facility and a valley-wide water distribution system to serve residents in the unincorporated regions of Imperial Valley not currently served by a Water District. This project will address the public health risk regarding human exposure to untreated canal water in the region.

STUDIES NEEDED

A comprehensive feasibility study is required to identify water treatment and distribution needs and recommend most appropriate alternatives to serve the needs of rural Imperial Valley residents. Preliminary and Final Engineering Design will be needed for the Municipal Water Treatment Facility and Distribution System. In addition, a study will also be needed to identify Operation & Maintenance (O&M) needs and recommend most appropriate approach to ensure adequate O&M of the system. Additionally, a Financial Feasibility Study is a necessity.

PROJECT LOCATION

Imperial County is located in the southeast corner of California and shares its southern border with Mexico. The Project area is located in the central valley portion of Imperial County. The proposed project area extends approximately 45 miles north from the US-Mexico border and its southern boundary borders Mexico by approximately 30 miles.

PROJECT PROPONENT(S)

A Joint Powers Agreement (JPA) between Imperial County, the Imperial Irrigation District, and the local municipalities. In the event that a JPA is not feasible, Imperial County and/or the Imperial Irrigation District will act as lead or co-lead project proponents.

ESTIMATED COST

A best estimate has not been determined. Imperial County would require assistance in estimating costs for this project.

City of Imperial

Rehabilitation of Wastewater Treatment Plant

Agency Jurisdiction

- US Environmental Protection Agency
- California Regional Water Quality Control Board-Colorado River Basin
- Imperial County

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HUMAN HEALTH AND ENVIRONMENTAL NEED

The City of Imperial operates a wastewater treatment plant, which utilizes an ultraviolet disinfection system. The ultraviolet system was designed in 1995 to meet the coliform disinfection standards at that time. In the year 2000, the coliform standard became more stringent, and the facility has sustained a much greater number of coliform violations since that time. The City has met with members of the California Regional Water Quality Control Board-Colorado River Basin, the U.S. Environmental Protection Agency, and the California Environmental Protection Agency to discuss the problem and potential solutions. It is strongly believed that much of the problem lies with the ultraviolet equipment, as it was designed to meet the previous, less stringent coliform limitations. Treated effluent from the plant is discharged into the Dolson Drain, which flows directly into the Alamo River, and then ultimately into the Salton Sea.

TYPE OF PROJECT

Wastewater Treatment

PROPOSED PROJECT

The proposed project consists of improvements and rehabilitation of the wastewater treatment system in the City of Imperial. These improvements and rehabilitation would address current coliform standard exceedances at the plant that have occurred as a result of the more stringent standards set in 2000.

STUDIES NEEDED

A Feasibility Study is needed in order to evaluate the effectiveness of the disinfection system at the City of Imperial Wastewater Treatment Plant and identify and recommend alternatives to improve disinfection capabilities at the plant. A cost analysis for any improvements and rehabilitation recommended would also need to be performed.

PROJECT LOCATION

The City of Imperial is located in southern Imperial County, just north of El Centro. The population of the City of Imperial is approximately 8,800. The entire City's population as well as the Alamo River and Salton Sea drainage basins would benefit from the project.

PROJECT PROPONENT(S)

The City of Imperial

ESTIMATED COST

The estimated cost of the feasibility study is $60,000.
The estimated cost of improvements and rehabilitation recommended will be known once studies are completed.

Community of Jacumba

Water System Improvements and Rehabilitation

AGENCY JURISDICTION

- US Environmental Protection Agency
- California Department of Health Services
- San Diego County

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HUMAN HEALTH AND ENVIRONMENTAL NEED

The Jacumba Community Services District's water system consists of old and failing infrastructure. The primary well was constructed without an annular protective seal, which can significantly reduce the likelihood of the well acting as a contamination conduit. In addition, the primary well does not produce enough water pressure for fire protection capacity. Because of the shallow screened interval (10-20 feet below ground surface), the well, during heavy rains, is artesian resulting in water breaching to the surface. Additionally, the backup well exceeds sulfur and coliform criteria, and needs to be continuously chlorinated prior to being placed on-line. Also, the transmission lines are constructed of PVC piping, and the District replaces an average of six breaks every year. Furthermore, some of the homes in Jacumba are not currently metered and new water meters need to be installed.

TYPE OF PROJECT:

Water Supply

PROPOSED PROJECT

The proposed project consists of improvements and rehabilitation of the Jacumba's water system. This will involve the installation of a groundwater treatment system that can provide a more reliable water source and ensure adequate water pressure for fire fighting capability. Also, the project will involve the construction of a larger supply tank. This will involve the replacement, upsize and looping of water lines in addition to the construction of a new water booster station. Water meters will also be installed.

STUDIES NEEDED

The Jacumba Water Services District has completed a preliminary engineering design report and environmental assessment for the proposed project.

A financial analysis of the water system is needed in order to justify any rate increases and to insure that the utility has sufficient reserve funds for the increased operational costs associated with the new proposed system.

PROJECT LOCATION

Jacumba is a small community located in southeastern San Diego County about 5 miles north of the US-Mexico border. Jacumba, which has an average annual median income of $14,000, has a population of about 500. The entire community would benefit from the proposed project.

AGENCY JURISDICTION

US Environmental Protection Agency
California Department of Health Services
San Diego County

PROJECT PROPONENT(S)

Jacumba Community Services District

ESTIMATED COST

The estimated cost of the project is $2,200,000.

Community of Jamul

Installation of Efficient Water Irrigation Technology

Agency Jurisdiction

- US Environmental Protection Agency
- California Regional Water Quality Control Board-San Diego Region
- San Diego County

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HUMAN HEALTH AND ENVIRONMENTAL NEED

The Jamul-Dulzura Union School District currently imports surface water to irrigate ball fields. The cost of this practice is high and local groundwater sources are limited.

TYPE OF PROJECT

Water Management

PROPOSED PROJECT

The proposed project consists of the installation of more efficient water irrigation technology for the Jamul-Dulzura Union School District. This project will decrease water demand and in turn address expensive water costs currently incurred by the District for landscape irrigation.

STUDIES NEEDED

A study is needed to evaluate the current irrigation system and to propose and recommend water conservation alternatives for the District's landscape irrigation program. The study will take into consideration the possibility of upgrading the current failing septic system to a small wastewater treatment plant, which will treat wastewater to the appropriate water reuse criteria for on-site irrigation.

PROJECT LOCATION

Jamul is an unincorporated community in southeastern San Diego County, approximately 25 miles north of the US-Mexico border. Jamul has a population of approximately 6,000. Approximately 1,200 students and a number of local residents utilize the District's ball fields for recreational use.

AGENCY JURISDICTION

US Environmental Protection Agency
California Regional Water Quality Control Board-San Diego Region
San Diego County

PROJECT PROPONENT(S)

The Jamul-Dulzura Union School District

ESTIMATED COST

The estimated cost of the feasibility study is $20,000.
The estimated cost of recommended water management/conservation measures will be known once study is completed.

Community of Jamul

Rehabilitation of Septic System

Agency Jurisdiction

- US Environmental Protection Agency
- California Regional Water Quality Control Board-San Diego Region
- San Diego County

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HUMAN HEALTH AND ENVIRONMENTAL NEED

The septic system for the Jamul-Dulzura Union School District is old and failing. The leach field lines are often blocked with mud, causing the system to clog and raw sewage to back-up. In addition, many of the leach field lines are shallow causing raw sewage to surface during the rainy season. The failing septic system is located within the school district's recreational areas (i.e. ball fields), which are utilized by students (K-8) and local residents. The potential exposure to raw sewage is a serious health threat.

TYPE OF PROJECT

Wastewater Treatment

PROPOSED PROJECT

The proposed project consists of rehabilitation or upgrade to a wastewater treatment plant of the septic system for the Jamul-Dulzura Union School District. This project will address septic tank system deficiencies.

STUDIES NEEDED

A study is needed to evaluate the current septic system and to propose and recommend alternatives to address system deficiencies. This study will make recommendations for improvements, rehabilitation and upgrade of the system. The study will consider upgrade of the septic system to a small wastewater treatment plant. This plant would treat wastewater to the appropriate water reuse criteria for on-site irrigation.

PROJECT LOCATION

Jamul is an unincorporated community in southeastern San Diego County, approximately 25 miles north of the US-Mexico border. Jamul has a population of approximately 6,000. The Jamul-Dulzura Union School District's ball fields have a total area of approximately nine acres, and are used by 1,200 students and a number of local residents.

AGENCY JURISDICTION

US Environmental Protection Agency
California Regional Water Quality Control Board-San Diego Region
San Diego County

PROJECT PROPONENT(S)

The Jamul-Dulzura Union School District

ESTIMATED COST

The estimated cost of the feasibility study is $20,000.
The estimated cost of recommended rehabilitation or upgrade will be known once study is completed.

Mesa Verde Colonia

Construction of a Reliable Backup Groundwater System

Agency Jurisdiction

- US Environmental Protection Agency
- California Department of Health Services
- Riverside County

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HUMAN HEALTH AND ENVIRONMENTAL NEED

The Riverside County Economic Development Agency (EDA) operates the water system for the Colonia of Mesa Verde (Riverside County Service Area #122). Two wells currently serve a population of 1,300 within the colonia. However, Mesa Verde lacks a reliable redundant or standby water source. The groundwater produced by the backup well exceeds primary Maximum Contaminant Levels (MCLs) for nitrates, gross alpha, fluoride and uranium. The California Department of Health (DHS) mandates that the well only be used for emergency purposes, and that additional treatment be installed before the backup well can be used as an active water source.

TYPE OF PROJECT

Water Supply

PROPOSED PROJECT

The proposed project consists of drilling a new well near the site of Mesa Verde's active water well. Based on previous studies, the groundwater quality at the proposed location is significantly better than that of the current backup well. The project will also involve the installation of a groundwater treatment system, water storage facilities, and transmission lines from the new well site to the colonia. This project will provide Mesa Verde with a reliable backup water supply source that meets water quality standards in the event that the active well is taken out of service for routine maintenance.

STUDIES NEEDED

No additional studies are needed. The Border Environment Cooperation Commission prepared a Preliminary Engineering Report, titled "Water Supply Alternatives, Mesa Verde and Ripley", dated February 2002. This report provides a summary of current water supply infrastructure, and analyzes various water treatment alternatives to improve the reliability of this region's groundwater supply.

PROJECT LOCATION

Mesa Verde, also known as Nicholls Warm Springs, is an unincorporated colonia in southeastern Riverside County. It is located 10 miles west of the Colorado River, and 60 miles north of the U.S./Mexico border. The project will benefit approximately 1300 users. The new water well will be drilled near Mesa Verde's currently active water source, located four miles west of the colonia.

PROJECT PROPONENT(S)

Riverside County Economic Development Agency is the lead project proponent. Desert Alliance for Community Empowerment acts as an advocate for the Colonia of Mesa Verde.

ESTIMATED COST

The estimated cost is $2,000,000.

Niland Colonia

Rehabilitation of Sewer Collection System

Agency Jurisdiction

- US Environmental Protection Agency
- California Regional Water Quality Control Board-Colorado River Basin
- Imperial County

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HUMAN HEALTH AND ENVIRONMENTAL NEED

The Niland Sanitary District (NSD) owns and operates an aeration pond system to treat wastewater from the colonia of Niland. District staff have documented several leaks and breaks in the sewer lines, which were constructed over 50 years ago and have been impacted by several small earthquakes. Sewer pipeline overflows are a public health threat to local residents and can potentially impact surface water quality.

Additionally, based upon the results of recent priority pollutant tests conducted in 2001, NSD has determined it will be unable to achieve immediate compliance with the new proposed effluent limits under the California Toxics Rule (CTR). Specifically, the NSD has exceeded effluent CTR limits for selenium, thallium, and copper. As a result, the District requires additional assistance with the characterization and source identification of elevated priority pollutant levels at the plant. Due to the high groundwater table in the vicinity of the plant, the District speculates the source of elevated metals concentrations may be due to local groundwater infiltration into the collection system. Treated and disinfected effluent from the plant is discharged into the "R" Drain, which flows directly into the Salton Sea.

NSD recently requested a five-year compliance schedule from the California Regional Water Quality Control Board, Colorado River Basin Region, to attain compliance with new, more stringent effluent limits in the upcoming National Pollutant Discharge Elimination System (NPDES) Permit that will be based on CTR criteria. Project components during this five-year schedule include the following:

- Quarterly influent and effluent priority pollutant monitoring
- Testing and assessment of District areas that may be contributing to high pollutant levels
- Begin review of collection system and testing of groundwater infiltration into the plant for pollutant levels
- Produce an accurate map and survey of collection system
- Implement any recommended repairs of the collection system

TYPE OF PROJECT

Wastewater Treatment

PROPOSED PROJECT

The proposed project consists of improvements and rehabilitation of the sanitary sewer collection system in the Colonia of Niland. These improvements will address the various leaks and breaks in the sewer system, and could also address current effluent limit exceedances at the NSD Wastewater Treatment Plant.

STUDIES NEEDED

In order to develop this project, the District needs to perform a closed-circuit television survey of the entire sewer collection system, which is comprised of approximately 32,000 lineal feet of four-inch pipeline. This survey will produce an accurate map of the collection system, an evaluation of the condition of the system, and will make recommendations for any improvements and rehabilitation. A cost analysis for any improvements and rehabilitation recommended would also need to be performed.

In addition, the District needs to perform a groundwater infiltration study to determine the potential source(s) of elevated metals effluent concentrations at the plant. This study will determine whether groundwater infiltration into the sewer collection system is the cause of elevated levels of copper, selenium, and thallium at the plant's effluent discharge.

PROJECT LOCATION

The NSD wastewater treatment plant is located on the southwest side of Niland, at 125 West Allcott Road, approximately 42 miles north of the US-Mexico border. Niland has a population of approximately 1,100, with an average median per capita income of $25,000.

PROJECT PROPONENT(S)

Niland Sanitary District

ESTIMATED COST

The estimated cost for the closed-circuit television survey is $60,000.
The estimated cost for the groundwater infiltration study is $60,000.
Total estimated cost for studies is $120,000.

The estimated cost of improvements and rehabilitation to the sewer system will be known once studies are completed.

NILAND COLONIA WASTEWATER TREATMENT PLANT EFFLUENT IS DISCHARGED INTO THE "R" DRAIN SHOWN ABOVE. THIS DRAIN DISCHARGES TO THE SALTON SEA.

North Shore Colonia/Bombay Beach Colonia/ Community of Hot Mineral Spa

Rehabilitation of Water System

Agency Jurisdiction

- US Environmental Protection Agency
- California Department of Health Services
- Imperial County

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HUMAN HEALTH AND ENVIRONMENTAL NEED

The Coachella Valley Water District (CVWD) provides drinking water service to the Colonia of North Shore, the Colonia of Bombay Beach, and the community of Hot Mineral Spa. Two wells, located in the community of Mecca currently serve these areas. The source water gravity-flows through nine miles of an asbestos cement water line to a series of three water storage reservoirs in the Colonia of North Shore. The water is distributed to customers in North Shore through a network of four-inch, six-inch and eight-inch lines. From North Shore, water is then sent 33 miles south to the Colonia of Bombay Beach and to the community of Hot Mineral Spa, where it is distributed to costumers from two storage tanks in a network of four-inch, six-inch, and eight-inch water lines.

Numerous water leaks have occurred in the entire water distribution system. CVWD staff has reported approximately 15 leaks in the distribution system in North Shore, and one leak in the transmission main from one of the supply wells to North Shore. The District has repaired multiple leaks resulting in temporary shutdown of water service to portions of North Shore. This has not only impacted the community, but also reduced CVWD's ability to preserve optimal water pressure in the distribution system for emergency purposes, such as fire protection.

TYPE OF PROJECT

Water Supply

PROPOSED PROJECT

The proposed project consists of several major improvements and rehabilitations to address the leaks in the water system servicing the Colonia of Bombay Beach, the Colonia of North Shore and the community of Hot Mineral Spa. This project will insure more reliable water delivery to customers in these areas, and increase the reserve capacity for fire protection purposes.

Specifically, the proposed improvements and rehabilitation to the water system include:

- Review of the cathodic protection system along the main transmission line from the storage reservoir to North Shore and Bombay Beach.
- Installation of valves and blow-off lines to allow one of the supply wells to be dropped out of service for repairs.
- Replacement of 120 feet of leaking transmission main pipeline with new pipeline.
- Rehabilitation and/or replacement of 43 air release-vacuum valves along the entire main transmission pipeline.
- Rehabilitation and recoating of two storage reservoirs.
- Construction of a larger main pipeline from Bombay Beach to Hot Mineral Spa service area.
- Acquisition of a new site for a storage reservoir in Hot Mineral Spa.

STUDIES NEEDED

CVWD will need to prepare a preliminary engineering design, and associated environmental assessments for the work described above.

PROJECT LOCATION

North Shore is designated as an unincorporated colonia by Riverside County. It is located on the north-eastern shore of the Salton Sea, approximately 60 miles north of the U.S.-Mexico border. This project will benefit approximately 1,500 users in the colonia.

Bombay Beach and the Hot Mineral Spa areas are both unincorporated. They are located in northern Imperial County, on the eastern shore of the Salton Sea, approximately 50 miles north of the U.S.-Mexico border. Bombay Beach is designated as a colonia by Imperial County. The proposed project will benefit approximately 600 users in these two areas.

PROJECT PROPONENT(S)

Coachella Valley Water District is the lead project proponent. The Desert Alliance for Community Empowerment is an advocate for the Colonia of North Shore. Imperial County Community & Economic Development is advocate for the Colonia of Bombay Beach.

ESTIMATED COST

Total estimated cost of improvements, rehabilitation and associated studies is $1,875,000.

SALTON SEA

Oasis Colonia

Construction of a Water System

Agency Jurisdiction

- US Environmental Protection Agency
- California Department of Health
- Riverside County

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HUMAN HEALTH AND ENVIRONMENTAL NEED

Currently, the Colonia of Oasis lacks a public water supply system. The private wells utilized by the community as a source of water do not meet acceptable water quality standards. Some of these wells exceed California Department of Health Services and US Environmental Protection Agency Maximum Contaminant Levels (MCLs) for arsenic, flouride, and Total Dissolved Solids, and produce water exceeding 95 degrees. Also, the supply well at the Oasis School contains levels of Arsenic and Flouride above state and Federal MCLs. In addition, aside from some individual private parcels, Oasis lacks an adequate pressurized water system or large storage facility to provide fire protection for its residents, including the students and employees at the Oasis school.

TYPE OF PROJECT

Water Supply

PROPOSED PROJECT

The proposed project involves the construction of a potable groundwater system for the Colonia of Oasis. Phase I of the project involves the construction of a series of wells, treatment facilities, and pumping stations in a high quality and productive well field located about 4 miles northwest of Oasis. (Valerie Jean) Phase I also includes the construction of a pipeline that will convey water from the wells to Oasis, and the construction of a water storage tank and a booster station within the community. Phase II involves the construction of a water distribution network within Oasis to serve the users. The proposed 13-mile, 18-inch transmission mainline will be constructed from the Valerie Jean wellfeild to the Riverside/Imperial County line and will connect to the existing Salton City mainline. This transmission line would be used to convey water not only to Oasis, but also to the West Shores communities (see page 41).

STUDIES NEEDED

The Desert Alliance for Community Empowerment (DACE), an advocacy group representing the interests of Oasis, has completed a Draft Preliminary Engineering Report, dated March 2003, evaluating various alternatives for implementing a reliable drinking water system in Oasis. DACE is in the process of finalizing the report.

Additionally, studies such as an engineering design, an environmental analysis of the project, and a financial analysis of the community of Oasis' ability to finance improvements to the system, will be required.

PROJECT LOCATION

The unincorporated community of Oasis is a designated colonia in the County of Riverside, approximately 60 miles north of the US-Mexico Border. There are approximately 1,500 people who will benefit from the proposed project.

PROJECT PROPONENT(S)

The Coachella Valley Water District is the lead project proponent. The Desert Alliance for Community Empowerment is an advocate for the Colonia of Oasis.

ESTIMATED COST

The estimated cost of the project, including all studies, is $6.1 million.

Ocotillo Colonia

Establishment of a Septic Management District

Agency Jurisdiction

- US Environmental Protection Agency
- California Regional Water Quality Control Board-Colorado River Basin
- Imperial County

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HUMAN HEALTH AND ENVIRONMENTAL NEED

Within the Colonia of Ocotillo, each residential unit owns and operates a septic tank system. Ocotillo, however, lacks an onsite septic management district to oversee the ongoing maintenance of these tanks. A majority of the residential units are located near two groundwater wellfields that serve the community. If the septic tanks are not adequately operated and maintained, sewage could potentially migrate and contaminate the local aquifer. The risk of aquifer contamination could be increased during the occasional heavy rains as the groundwater table rises.

TYPE OF PROJECT

Municipal Planning and Development

PROPOSED PROJECT

The proposed project involves the establishment of a septic management district to oversee the ongoing maintenance of the private septic tanks in the community of Ocotillo. This district would inspect and ensure the regular cleaning of these private systems.

STUDIES NEEDED

A financial planning analysis is needed to determine the appropriate method of revenue collection to adequately oversee the septic tank systems in Ocotillo.

PROJECT LOCATION

Ocotillo is designated a colonia by Imperial County. Ocotillo is located about 70 miles east of San Diego, and about 10 miles north of the U.S.-Mexico border. The entire population of Ocotillo, approximately 500, would benefit from the proposed project.

PROJECT PROPONENT(S)

The lead project proponents are the Ocotillo Mutual Water Company and the Coyote Valley Mutual Water Company.

ESTIMATED COST

The estimated cost for the study is $25,000.

Ocotillo Colonia

Construction of a Water Connection Line

Agency Jurisdiction

- US Environmental Protection Agency
- California Department of Health Services
- Imperial County

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HUMAN HEALTH AND ENVIRONMENTAL NEED

Currently, two separate private non-profit water companies serve the Colonia of Ocotillo. Both water systems lack adequate water pressure for fire prevention. In addition, if one water system becomes non-operational as a result of an emergency or catastrophic event, water cannot be diverted from one system to the other in order to provide water to users without service.

TYPE OF PROJECT

Water Supply

PROPOSED PROJECT

The proposed project involves the installation of a water connection line that would link the two adjacent water systems, which service the Colonia of Ocotillo. This project will address both the need for additional water pressure in the system and the need for a back-up source of water during emergency situations.

STUDIES NEEDED

Preliminary and final engineering design will be needed for the water connection line. In addition, the two water companies will need to perform a financial analysis to determine adequate rates in order to maintain and operate the system upgrade.

PROJECT LOCATION

Ocotillo is designated a colonia by Imperial County. Ocotillo is located about 70 miles east of San Diego, and about 10 miles north of the US-Mexico border. The entire population of Ocotillo, approximately 500, would benefit from the interconnection of the two water systems.

PROJECT PROPONENT(S)

The lead project proponents are the Ocotillo Mutual Water Company and the Coyote Valley Mutual Water Company.

ESTIMATED COST

The estimated cost of the project including studies is $540,000.

Pala Band of Mission Indians

Construction of a Gravity-flow Sewer Collection System

Agency Jurisdiction

- US Environmental Protection Agency
- Pala Band of Mission Indians Environmental Protection Agency

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HUMAN HEALTH AND ENVIRONMENTAL NEED

Approximately 265 out of the 425 residences in the Pala Band of Mission Indians reservation are connected to private septic systems. These septic tanks were constructed in the 1920's, and the Pala Band of Mission Indians Environmental Protection Agency (Pala EPA) has documented leaks in the systems. During site inspections, Pala EPA representatives have observed raw sewage discharges, which are a public health threat to local residents. In addition, many residents often complain of the foul odors associated with these sewage discharges. Maintenance of these septic tanks is difficult since the tanks were not constructed with manhole risers, which facilitate system location.

TYPE OF PROJECT

Wastewater Treatment

PROPOSED PROJECT

The proposed project involves the installation of a gravity collection system to transport the sewage directly from the residences to the existing community wastewater treatment plant. The oxidation lagoon wastewater treatment system has the capacity to treat this additional sewage. The proposed sewage collection system will consist of the following components:

- 37,000 lineal feet of 8-inch sewer main
- 7,000 lineal feet of 4-inch sewer force main
- 117 sewer manholes
- 265 sewer laterals
- 8 sewage lift stations

STUDIES NEEDED

A Preliminary Engineering Report, dated November 1999, was prepared for the Pala Band of Mission Indians. The report evaluated several alternatives to address the contamination posed by the leaking septic systems, and made the recommendation to transport the sewage to Pala's Wastewater Treatment Plant.

A utility survey and geophysical evaluation will be needed before installing the underground sewage collection system at the Pala reservation.

PROJECT LOCATION

There are approximately 1,100 residents living in 425 homes on the Pala Reservation. The tribe is located in northwestern San Diego County, approximately 55 miles north of the U.S.-Mexico border. The residents of 265 homes would benefit from this project.

PROJECT PROPONENT(S)

Pala Band of Mission Indians Environmental Protection Agency

ESTIMATED COST

The estimated cost for the sewer collection system and needed studies is $3,200,000.

Palo Verde Colonia

Looping of the Water Distribution System and Installation of New Water Meters

Agency Jurisdiction

- US Environmental Protection Agency
- California Department of Health Services
- Local Agency Formation Commission (LAFCO)
- Imperial County

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HUMAN HEALTH AND ENVIRONMENTAL NEED

The Palo Verde County Water District provides municipal water service to approximately 174 customers in the Colonia of Palo Verde. The water distribution system is comprised of 6-inch and 8-inch asbestos cement water pipes and contains three separate sections where the lines come to a dead-end. Many residents who live near the dead-end sections of the line observe sediment in their water taps. The extra sediment accumulates in the lines near the dead-end sections where it has no room to escape. To remedy this problem, the District needs to open the end of the line, temporarily eliminate service to some residents, and flush the line with treated domestic water. However, this alternative can result in the use of a significant amount of treated domestic water, leaving less water available for the residents and for fire protection purposes.

Additionally, many of the District's water meters are close to 20 years old and do not correctly register the amount of water used by the community. Currently, many users pay only a flat fee for their water service.

TYPE OF PROJECT

Water Supply

PROPOSED PROJECT:

The District proposes to continually loop the three areas of the water distribution system where dead-end sections exist. Three new sections of 8-inch HDPE or PVC water pipe will be constructed to continually loop the water system. Two sections will be constructed to connect the system across the Palo Verde Lagoon, and one section to connect the system along 9th Avenue from Clark Way to Highway 78.

Additionally, the District proposes to purchase and install new water meters to replace selected meters that do not correctly measure the amount of water delivered to customers.

STUDIES NEEDED

In order to develop the proposed project, the following studies are needed:

- A Preliminary Design Planning Document for the three looping projects. This study will also include a ground survey and utility verification.
- An Environmental Impact Assessment Report of the three looping projects. The report will include recommendations for mitigation activities to compensate for any damages.
- A Geotechnical Investigation to assess the soil types and soil engineering characteristics.
- A User Rate Study to assist the community in determining how users can pay for future improvements to the water system.

PROJECT LOCATION

Palo Verde is designated as a colonia, and is located in the northeastern corner of Imperial County. It is adjacent to the Colorado River, and it is approximately 50 miles north of the U.S.-Mexico border. Approximately 500 people live in Palo Verde.

PROJECT PROPONENT(S)

Palo Verde County Water District

ESTIMATED COST

The estimated cost for construction of three new sections is $550,000.
The estimated cost for the studies is $102,000.

Total estimated cost including studies is $652,000.

COLORADO RIVER NEAR IMPERIAL DAM. SOME OF THE COLORADO RIVER WATER USERS IN CALIFORNIA INCLUDE THE COACHELLA VALLEY WATER DISTRICT AND THE IMPERIAL AND PALO VERDE IRRIGATION DISTRICTS.

Poe Colonia

Paving of Roads

Agency Jurisdiction

- US Environmental Protection Agency
- California Air Resources Board
- Imperial County Air Quality Control District

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HUMAN HEALTH AND ENVIRONMENTAL NEED

The Poe Colonia subdivision has approximately 25 residences. Recently, water and wastewater infrastructure improvements have been made. However, the existing streets remain unpaved and the resulting dust generated is a public health threat to local residents. In fact, the US Environmental Protection Agency (USEPA) recently designated Imperial County a moderate non-attainment area for dust or particulate matter-10μm (PM-10). Air pollution in the region has been attributed to exacerbating respiratory illnesses in children and the elderly.

TYPE OF PROJECT

Air Quality Improvement

PROPOSED PROJECT

The proposed project involves the design and construction of a new asphalt surface, base material and concrete curb, gutter and sidewalk for the Poe Colonia. The paving will reduce negative air quality impacts to PM-10 dust generation. The curb and gutter will improve the drainage of the streets and the sidewalk and will increase safety to pedestrians.

STUDIED NEEDED

Engineering design studies will be required for preparation of plans and specifications for construction. CEQA and possibly NEPA studies may also be required to address the environmental impacts.

PROJECT LOCATION

The Poe Colonia is located approximately 1.5 miles west of the City of Brawley and is located near the intersection of Cady Road and Kalin Road in the unincorporated area of Imperial County. The Poe Colonia has a population of approximately 160 people. The entire colonia's population will benefit from the project.

PROJECT PROPONENT(S)

Imperial County

ESTIMATED COST

The estimated cost for engineering, design and environmental documentation is $ 90,000.
The estimated construction cost is $ 715,000.
Total Cost is $805,000.

Community of Salton City

Wastewater Treatment System Improvements

Agency Jurisdiction

- US Environmental Protection Agency
- California Regional Water Quality Control Board-Colorado River Basin Region

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HUMAN HEALTH AND ENVIRONMENTAL NEED

The Salton Community Services District operates a wastewater treatment plant in Salton City, California. The operation is a percolation system. Ponding has occurred in low elevation areas within the property of the wastewater treatment plant. If not addressed, the District is concerned that this problem may extend to neighboring properties.

TYPE OF PROJECT

Wastewater Treatment

PROPOSED PROJECT

The proposed project consists of improvements to the wastewater treatment system in Salton City in order to address ponding.

STUDIES NEEDED

A feasibility study will be needed to identify and assess alternatives, and make recommendations for any improvements to the wastewater treatment system. A cost analysis will also need to be performed. The alternatives to be assessed include percolation at an alternate site, discharge to the Salton Sea, and water recycling. Preliminary and final engineering studies and environmental assessments will also be needed. In addition, the District has outdated plans for the current facility, which was constructed in the 1960s. As a result, new facility plans will need to be developed.

PROJECT LOCATION

The community of Salton City is located along the west shore of the Salton Sea, in Imperial County, approximately 50 miles north of the US-Mexico border, and 35 miles northwest of Brawley, California. The Salton City Wastewater Treatment Plant is located in the southeast corner of the City. The entire community of Salton City, with a population of approximately 1000 people, will benefit from the proposed project.

PROJECT PROPONENT(S)

Salton Community Services District

ESTIMATED COST

The estimated cost to perform all studies is $150,000.
The estimated cost of improvements to the system will be known once studies are completed.

Tecate Colonia

Water System Rehabilitation

Agency Jurisdiction

- US Environmental Protection Agency
- California Department of Health Services
- San Diego County

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HUMAN HEALTH AND ENVIRONMENTAL NEED

The public water system built to serve the Colonia of Tecate in the 1940s, is composed of failing water lines and a leaking water reservoir. Tecate Mutual Water District replaces an average of six leaks on the water distribution system every year. Many lines are shallow and exposed to surface hazards such as vehicle traffic. The 10,000-gallon storage reservoir sustains several leaks and overflows a year.

As a result of the aging water infrastructure, the community of Tecate is often without reliable water service. The community is comprised of many low-income families, and given the small service area (approximately 20 residential and commercial customers combined), there is little revenue to improve the water system.

TYPE OF PROJECT

Water Supply

PROPOSED PROJECT

The proposed project involves the review and rehabilitation of the water system in Tecate, California. In addition, the project involves the rehabilitation or replacement of the water storage tank.

STUDIES NEEDED

A closed circuit television survey of the water distribution system will be needed. This survey will produce an accurate map of the distribution system, an evaluation of the condition of the system, and make recommendations for any improvements and rehabilitation.

Additionally, a feasibility study will be needed to determine the optimal size of the storage reservoir in order to meet peak demand. A cost analysis for any improvements and rehabilitation recommended would also need to be performed.

PROJECT LOCATION

Tecate is located approximately 40 miles southwest of San Diego, and adjacent to the US-Mexico Border. The entire population of Tecate, California, approximately 150 people, would benefit from this project.

PROJECT PROPONENT(S)

The Tecate Vista Mutal Water Company will be the lead project proponet. The Tecate Vista Mutual Water Company is a private non-profit organization established to oversee the water system in Tecate.

ESTIMATED COST

The estimated cost of needed studies and the closed-circuit television survey is $40,000.

The estimated cost of improvements and rehabilitation to the water system will be known once studies are completed.

West Shores Communities

Rehabilitation of Water System

Agency Jurisdiction

- US Environmental Protection Agency
- California Department of Health Services
- Imperial County

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HUMAN HEALTH AND ENVIRONMENTAL NEED

The Coachella Valley Water District (CVWD) operates two wells, water storage facilities, and the distribution infrastructure to supply potable water to the communities of Salton City, Desert Shores, and Salton Sea Beach (West Shores). The California Department of Health Services has documented numerous water main breaks and leaks in the water distribution system for these communities. According to CVWD, over 100 leaks or breaks have occurred in the water distribution network for the above communities from 1995 to 1998.

Additionally, the water system does not have sufficient storage and production capacity to meet peak water demands in Salton City, Salton Sea Beach, and Desert Shores during the summertime, or when supply is interrupted due to repairs. The rate of groundwater extraction in the wellfield that serves these areas exceeds recharge, and consequently the aquifer is being depleted.

TYPE OF PROJECT

Water Supply

PROPOSED PROJECT

To remedy the problems that are associated with the leaking water transmission infrastructure, CVWD proposes the following improvements to the water system:

- Replace and relocate 15 continually leaking main water transmission line sections.
- Replace pump components.
- Rehabilitate or replace two pressure-reducing stations.
- Install pipeline extensions to serve new users.
- Recoat and rehabilitate water storage reservoirs.

SALTON SEA BEACH MARINA LOCATED ON THE WEST SHORE OF THE SALTON SEA.

To remedy the problem associated with a rapidly depleted water supply source, CVWD proposes the following:

- Obtain access and drill new wells north of the existing wellfield at Valerie Jean. The proposed Valerie Jean wellfield will replace the existing water supply wellfield, which is rapidly being depleted. In addition, a treatment system (arsenic treatment and disinfection) will be installed to treat groundwater from the Valerie Jean wellfield before distribution. Well pumping equipment will also be procured and installed.
- Install 13 miles of 18-inch transmission mainline from the proposed Valerie Jean wellfield at Highway 86 S to the Imperial/Riverside county line. This transmission line will connect to the existing Salton City mainline.

STUDIES NEEDED

NA

PROJECT LOCATION

The communities of Desert Shores, Salton City and Salton Sea Beach are located along the west shore of the Salton Sea, in Imperial County, approximately 50 miles north of the US-Mexico border. Salton Sea Beach is a designated colonia in Imperial County. The project will benefit the residents of all three communities, which have a combined population of 2,200, and about 1,360 connections.

PROJECT PROPONENT(S)

Coachella Valley Water District.

ESTIMATED COST

The total estimated cost is $13.8 million.

City of Westmorland

Development of a Service Area Plan

Agency Jurisdiction

- US Environmental Protection Agency
- Local Agency Formation Commission
- Imperial County

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HUMAN HEALTH AND ENVIRONMENTAL NEED

The City of Westmorland lacks a Service Area Plan. As required by California State Legislation, the City must submit a Service Area Plan to the Local Agency Formation Commission (LAFCO) by January 1, 2005. A Service Area Plan is a municipal planning document that can assist a community in mitigating the negative impacts to the environment and public health as a result of current activity (such as NAFTA-generated truck traffic) and future development and growth.

TYPE OF PROJECT

Municipal Planning and Development

PROPOSED PROJECT

The proposed project involves the development of Service Area Plan for the City of Westmorland. This municipal planning document would consist of an environmental analysis, engineering analysis, infrastructure cost study, and financial analysis. In addition, an impact fee study and ordinance would need to be prepared in order to implement mitigation measures proposed in the plan.

STUDIES NEEDED

NA

PROJECT LOCATION

The project would cover the City as well as portions of the County surrounding the City, which would be included in the City's urbanized planning area. The population to benefit from this project is approximately 2,200.

PROJECT PROPONENT(S)

City of Westmorland

ESTIMATED COST

The estimated cost is $200,000.

City of Westmorland

Road Paving

Agency Jurisdiction

- US Environmental Protection Agency
- California Air Resources Board
- Imperial County Air Pollution Control District

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HUMAN HEALTH AND ENVIRONMENTAL NEED

The City of Westmorland, a rural community with a median household income of $23,365, receives limited funds for road improvements. The City has some unpaved streets and some partially improved streets. During dry weather, vehicles traveling in the unpaved roads generate dust. The resulting dust generated is a public health threat to local residents. The US Environmental Protection Agency (USEPA) recently designated Imperial County a moderate non-attainment area for dust or particulate matter-10 micrometers (PM-10).

TYPE OF PROJECT

Air Quality Improvement

PROPOSED PROJECT

The proposed project involves the design and construction of a new asphalt surface, base material and concrete curb, gutter and sidewalk for the City of Westmorland's unpaved and partially improved streets. Approximately 5 miles of roads will be paved. The paving will reduce negative air quality impacts to PM-10 dust generation. The curb and gutter will improve the drainage of the streets and the sidewalk will increase safety to pedestrians. Paving streets can contribute to improved air quality by reducing PM 10 generation.

STUDIES NEEDED

Plans and studies needed to implement the project are: 1) preliminary engineering and planning studies, 2) environmental assessment and, 3) preparation of plans, specifications, and cost estimate.

PROJECT LOCATION

The project is located in various portions of the City as well as some road segments adjoining the city limits within Imperial County. The population to benefit from the proposed project is approximately 2,200.

PROJECT PROPONENT(S)

The City of Westmorland will be the lead agency for the project. For areas within the county, both the City and Imperial County would participate.

ESTIMATED COST

The estimated cost for studies/design of the project is $350,000.
The estimate for construction of the road improvements is $3,500,000.
Total Cost is $3,850,000.

City of Westmorland

Wetland Construction and Wastewater Reuse Project

Agency Jurisdiction

- US Environmental Protection Agency
- California Regional Water Quality Control Board-Colorado River Basin

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HUMAN HEALTH AND ENVIRONMENTAL NEED

The City of Westmorland currently injects chlorine followed by dechlorination to eliminate coliform in the effluent from the City's Wastewater Treatment Plant (WWTP). The City's WWTP, however, has in some instances exceeded the effluent limit for e.coli. Treated and disinfected effluent ultimately reaches the Salton Sea. The City of Westmorland is interested in reducing its contribution of pollutant loads into the Salton Sea through the construction of a wetland. In addition, the City would like to reclaim treated effluent from its WWTP for irrigation purposes.

TYPE OF PROJECT

Wastewater Treatment

PROPOSED PROJECT

The proposed project has a twofold objective. The first objective is to eliminate the chemical dosing of the City of Westmorland Wastewater Treatment Plant's effluent through the construction of a wetland. The constructed wetland will remove coliform through biological, rather than chemical treatment, and thus reduce the chemical load in the water reaching the Salton Sea. The second objective is to reclaim and reuse the effluent from the treatment process for irrigation purposes by either returning the reclaimed water to the irrigation canal system or by constructing a reclaimed water distribution pipe system.

STUDIES NEEDED

The City has completed mapping of the site. The map includes topographical features as well as elevation contours. The City now requires assistance with: 1) preliminary engineering and planning studies, 2) environmental assessment, 3) long-term financial analysis, and 4) design of wetland/ park plan.

PROJECT LOCATION

The project will be located at the northwest corner of the City of Westmorland. The population to benefit from this proposed project is approximately 2,200.

PROJECT PROPONENT(S)

City of Westmorland

ESTIMATED COST

The estimated cost for the studies, assessments and design of the project is $300,000.

The estimated cost for construction of the wetland is $2,000,000.

The estimate for construction of the reclamation/reuse system to return the water to the irrigation canal system is $800,000.

Alternatively, the cost to construct a reclaimed water pipe system is $3,000,000.

Total Cost is $3.1 million or $6.1 million (for construction of a reclaimed water system).

Winterhaven Colonia

Replacement of Water Line Shut-off Valves

Agency Jurisdiction

- US Environmental Protection Agency
- California Department of Health Services
- Imperial County

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HUMAN HEALTH AND ENVIRONMENTAL NEED

The Winterhaven Water District has about 25 water line shut-off valves located throughout the public water system, which has about 175 connections. These shut-off valves are over 20 years old, and do not function properly. When a water leak is reported, the District must shut off a large portion of the water system because many times the shut-off valves in the immediate vicinity of the leak are not functioning properly. As a result, the District must stop delivery of water to a large number of customers in the Colonia of Winterhaven. In addition, the District is unable to maintain optimum water pressure for emergency response, such as fire protection.

TYPE OF PROJECT

Water Supply

PROPOSED PROJECT

The proposed project involves the replacement of 25 water line shut-off valves with new units, as the existing valves are old and not functioning properly.

STUDIES NEEDED

Historically, the rates in the Colonia of Winterhaven have been low, and the District has had difficulty in justifying a rate increase. A rate study is needed to determine how the community will pay for any future improvements to the water and sewer infrastructure, such as the cost to replace the water system shut-off valves.

PROJECT LOCATION

The Colonia of Winterhaven is located about 10 miles north of the US-Mexico border, in the southeast corner of Imperial County, directly across the Colorado River near Yuma, Arizona. The entire population of approximately 850 people will benefit from this project.

PROJECT PROPONENT(S)

Winterhaven Water District

ESTIMATED COST

The estimated cost for replacing 25 valves is $6,250.
The estimated cost for the rate study is $25,000.